IN THE CLAIMS

Please amend Claims 5, 27 and 30, cancel Claims 7-9, 22 without prejudice, and add new Claims 36-38 as follows:

1. (Original) An inductive device, comprising:

a magnetically permeable core having a gap formed therein;

at least one winding disposed proximate to said core;

a magnetically permeable element disposed at least partially within said gap; and

an insulator disposed proximate to said magnetically permeable element;

wherein said permeable element, core, and insulator cooperate to provide a desired inductance characteristic as a function of current.

2. (Original) The inductive device of Claim 1, wherein said magnetically permeable element comprises an alloy of metals.

3. (Original) The inductive device of Claim 1, wherein said winding is disposed at a prescribed distance from said gap.

4. (Original) The inductive device of Claim 1, wherein said gap comprises a substantially "V" shape.

5. (Currently amended) The inductive device ~~if~~ of Claim 1, wherein said inductance characteristic comprises an inductance value associated with a first condition which is substantially larger than the value associated with a second condition.

6. (Original) The inductive device of Claim 5, wherein said device is adapted for use in a telecommunications circuit, and said first condition comprises an "on-hook" current, and said second condition comprises and "off-hook" current.

7. – 9. (Canceled)

10. (Original) An inductive device, comprising:

a magnetically permeable toroidal core having a gap formed therein;

at least one winding wound around at least a portion of said core; and

means for magnetically bridging said gap, said means for bridging cooperating with said core and at least one winding to provide a desired inductance characteristic for said device during operation thereof in a circuit.

11. - 18. (Canceled)

19. (Original) An inductive device adapted for use in a telecommunications circuit, said device having a controlled inductance characteristic, comprising:

a magnetically permeable toroidal core having one gap formed therein

at least one winding wound on said core; and

at least one magnetically permeable element adapted to bridge at least a portion of said gap;

wherein said inductance characteristic comprises an inductance value associated with an "on-hook" current is substantially larger than the inductance value associated with an "off-hook" current.

20. (Original) The device of Claim 19, wherein:

said at least one element is formed of a magnetically permeable material and in a first predetermined configuration; and

said gap is formed in a second predetermined configuration;

said first and second predetermined configurations and said material cooperating to provide said inductance characteristic.

21. (Original) The device of Claim 20, wherein said first predetermined configuration comprises a reduced cross-sectional area of said element, and said second predetermined configuration comprises a particular gap width and shape.

22. (Canceled)

23. -25. (Canceled)

26. (Original) A controlled induction electronic device, comprising:

a substantially toroidal core having a gap formed therein;

at least one permeable element having first and second regions and being disposed substantially across said gap, said first and second region being in direct physical contact with respective portions of said core on either side of said gap;

a coating covering substantially all of said core and said at least one element; and

at least one winding disposed around said core and substantially atop said coating.

27. (Currently amended) An inductive device, comprising:

a substantially toroidal core having a gap formed therein, said gap extending at least partly through the thickness of said core;

a quantity of a first material, said first material adapted to change at least one physical property upon at least one application of a stimulus;

a magnetically permeable element adapted to bridge at least a portion of said gap; and

said first material, said permeable element, and said core are proximate one another in such fashion that when said stimulus is applied, said permeable element is brought into close cooperation with said core.

28. (Previously presented) The inductive device of Claim 27, wherein said first material is a heat-reactive tubing, said heat-reactive tubing changing in at least one physical dimension in response to said stimulus.

29. (Previously presented) The inductive device of Claim 28, wherein said permeable element comprises a sheet of alloy-based material, said sheet being configured to conform substantially to a portion of a periphery region of said gap during said application of said stimulus.

30. (Currently amended) An inductive device, comprising:

a substantially toroidal core having a gap formed therein, said gap extending at least partly through a thickness of said core;

a quantity of responsive material, said material adapted to change at least one physical property upon at least one application of a stimulus; and

a magnetically permeable element adapted to bridge at least a portion of said gap, wherein said permeable element and said core are proximate one another and substantially within a volume formed by said responsive material;

wherein said responsive material, in response to said stimulus, forces said permeable material into communication with said core, thereby bridging said gap.

31. (Previously presented) The inductive device of Claim 30, further comprising:

a first substantially insulating coating covering at least portions of the surface of said device; and

a plurality of turns of a conductor disposed around said core and substantially atop said coating.

32. (Previously presented) The inductive device of Claim 31, further comprising:

a second substantially insulating coating, wherein said second coating coats at least a portion of said device and at least a portion of said plurality of turns.

33. (Previously presented) A controlled induction electronic device, comprising:

a substantially toroidal core having a gap formed therein;

a permeable gap-bridging element, wherein said element is disposed substantially across said gap;

a first coating, said first coating substantially coating said core and said element; and

a plurality of conductor turns on said core.

34. (Previously presented) The controlled induction electronic device of Claim 33, wherein at least portions of said element are in direct physical contact with respective sides of said core proximate said gap; and

said element and said core are substantially fixed in position relative to one another.

35. (Previously presented) The controlled induction electronic device of Claim 34, wherein said first coating comprises parylene applied using at least one of a vacuum or vapor deposition process.

36. (New) An inductive device having a controlled inductance, comprising:

a magnetically permeable toroid core having a gap formed therein;

at least one wind of conductive material wound around said core, said winding disposed at least a predetermined distance from said gap;

a thin sheet of magnetically permeable material, wherein said sheet of magnetically permeable material is folded at least once; and

an insulating element adapted to be inserted between said folded sheet of said magnetically permeable material;

wherein said folded sheet and at least one insulating element are at least partially inserted within said gap such that portions of said sheet physically contact said core.

37. (New) A controlled inductive device, comprising:

a magnetically permeable toroid core having a gap extending through at least a portion thereof, said gap having sidewalls associated therewith;

a plurality of conductive turns around said core;

a magnetically permeable element at least partially within said gap of said toroid; and

an insulating element, wherein said insulating element is disposed within said magnetically permeable element such that said permeable element physically contacts said core.

38. (New) The controlled inductive device of Claim 37, wherein said gap is sized so as to produce a resulting inductance of approximately 8 mH.